

WHAT IS CLAIMED IS:

1. A disc for use in a variator of a toroidal continuously variable transmission comprising:

a concave race at least on one side surface thereof
5 for rolling movement of rollers; and

a spline hole at its center which is meshed with an input shaft;

said disc having a surface hardness of not less than Hv700 at said race; and

10 having a surface hardness of not more than Hv600 at said spline hole;

wherein at least at a thin portion between said spline hole and an inside circumferential edge of said race is varied in hardness between a hardened layer of
15 a bottom of said spline hole and a hardened layer of said race by an amount of not less than Hv20 per 1-mm depth.

2. A method of fabricating said variator disc of Claim 1 comprising the steps of:

heat treating a blank for said disc for adjusting
20 a surface hardness thereof to not less than Hv700;

annealing said spline hole by high frequency heating while cooling said race; and

finishing said spline hole and said race.

3. The method of fabricating said variator disc as
25 claimed in Claim 2, wherein a cooling jig is positioned

in parallel with said race as defining a minor gap therebetween and said race is cooled by circulating a coolant through said cooling jig.

4. The method of fabricating said variator disc as
5 claimed in Claim 3, wherein said minor gap between said race and said cooling jig is in the range of 0.3 to 0.5 mm.